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EUROPEAN PATENT APPLICATION

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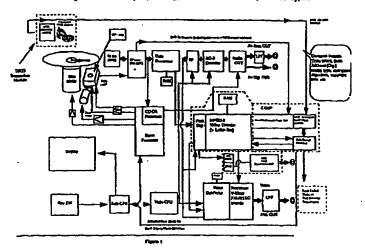
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- (30) Priority: 20.12.1998 US 33543 P
- (71) Applicant: Texas Instruments Incorporated Dallas, Texas 75251 (US)

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- (54) Improvements in or relating to security systems
- (57)The invention consists of attaching or embedding a "TIRIS" transponder (or other RF or IR or barcode or other identifying device) physically into the center of the proposed DVD disk. Once a disk is input to a media player, the interrogation portion of the media player transmits an interrogation signal to the transponder located on the disk. Once empowered with the interrogation signal, the transponder accesses the predetermined address, code word, encryption algorithms, media type information, and copyright information from it's memory. Then the transponder transmits the address, the code word, encryption algorithms, media type information and copyright information to the interregator, located within the media player, and the interrogator sends the transponder data stream to a conditional access management processor(CAMP)... Simultaneously with the processing action of the CAMP, the interrogator instructs the player to access the data_word at the predetermined address on the disk and the player accesses the data_word on the disk. The media player only plays if there is a match between the read data_word and received code word and the received algorithm correctly decrypts the content of the media prior to decoding.

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Block Diagram of DVD Player (ROM Type for Published Media) + TIRIS cypher





EUROPEAN SEARCH REPORT

Application Number EP 97 12 2526

Category	Citation of document with	Indication, where appropriate,		vant		
	of relevant pas	sages	to ci	aim	APPLICATION (I	nt.Cts)
A	US 5 461 386 A (KNI 24 October 1995 * abstract * * column 1 *	EBELKAMP MICHAEL)	1,5		G11B20/00 G11B23/28	
l	* column 2 *					
	* column 3, line 1 * column 4, line 3 * column 5, line 1 * figures 1A,1B,1C	7 - line 67 * - line 8 *			·	
A	"TIRIS ZET AUTODII POLYTECHNISCH TIJD: ELEKTROTECHNIEK, EI vol. 49, no. 5, May XP000454909 * the whole document	SCHRIFT, LEKTRONICA, 1994, page 7	1,5			
4	US 5 287 112 A (SCH 15 February 1994 * abstract * * column 1, line 1		1,5		TECHNICAL REL	DS
4	US 4 827 395 A (AND 2 May 1989 * abstract * * column 1. line 50 * column 2 * * column 3 * * column 4. line 1 * column 7 * * column 8. line 1 * column 11. line 6 * column 11, line 6 * column 12, line 1 * column 12, line 1 * column 19, line 1	- line 14 * - line 68 * - line 45 * - line 16 * 5 - line 68 * - line 16 *	1,5		SEARCHED (IM.O.6) G11B G01S G06K G07C H04L	
	The present search report has					
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EUROPEAN SEARCH REPORT

Application Number EP 97 12 2526

	DOCUMENTS CONSID	DERED TO BE RELEVANT		
Category	Citation of document with of relevant pas	indication, where appropriate, sages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (BILCLE)
A.	US 5 499 017 A (BE 12 March 1996 * abstract * * column 1 * * column 2, line 1 * column 3, line 6 * column 4, line 1	- line 26 * 5 - line 67 *	1,5	
١.	US 5 430 441 A (BIG 4 July 1995 * abstract * * column 1. line 1	CKLEY ROBERT H ET AL) 3 - line 45 *	1,5	·
١	US 4 918 955 A (KII 24 April 1990 * abstract * * column 3, line 10 * figure 3 *	MURA TAKASHI ET AL)	1,5	
\	US 5 245 332 A (KA 14 September 1993 * abstract *	TZENSTEIN HENRY S)	1,5	TECHNICAL FIELDS SEARCHED (Int.CLG)
' , А	EP 0 80S 575 A (TE) 5 November 1997 * abstract * * page 2 * * page 3. line 1 - * page 4, line 20 - * page 5 * * page 6 * * figure 4 *			
•		/		
	The present search report has	been drawn up for all claims		
	Place of season	Date of completion of the search	·	Examiner
X : parti Y : parti docu A : techi O : non-	THE HAGUE ATEGORY OF CITED DOCUMENTS Cutarly relevant if taken alone cutarly relevant if combined with ano motiograf background written disclosure modate document	E : earlier patent do alter the filing da	e underlying the it cument, but publis te in the application or other reasons	

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EUROPEAN SEARCH REPORT

Application Number EP 97 12 2526

	DOCUMENTS CONSID	ERED TO BE RELEVANT	·		
Category	Citation of document with of relevant pas	ndication, where appropriate, sages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CLS)	
A		RTA DWAINE S ET AL) 1 - line 68 * - line 3 * 5 - line 68 * - line 9 * 1 - line 47 * 51 - line 68 *	1,5	TECHNICAL FIELDS SEARCHED (Inl.Cl.6)	
	The present search report has	hope drawn up for all chame		SEARCHED (Inl.Cl.6)	
	Place of staych	Date of complision of the search	_	Enament	
	THE HAGUE	1 February 1999	Bare	el-Faucheux, C	
X : parti Y : parti docu A : tech: O : non-	ATEGORY OF CITED DOCUMENTS cularly relevant of taken alone cularly relevant of combined with anot ment of the same category mological background written disclosure mediate document	E : Gartier patent after the filing: her D : document crio L : document crio	T theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons 8: member of the same patent family, corresponding		

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 97 12 2526

This annex lists the patent family members retained to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP (file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

01-02-1999

Patent document cited in search report			Publication date	Pateni family member(s)		· Pubscation date	
บร	5461386	A	24-10-1995	JP	8296354 A	12-11-199	
				. US	5561430 A	01-10-199	
US	5287112	A	15-02-1994	ΕP	0674298 A	27-09-199	
				JP	7131376 A	19-05-199	
				US	5374930 A	20-12-199	
US	4827395	A	02-05-1989	US	4656463 A	07-04-198	
				CA	1249359 A	24-01-198	
				FR	25448 6 7 A	26-10-198	
				GB	2141006 A,B	05-12-198	
_				JP	60100294 A	04-06-198	
บร	5499017	A	12-03-1996	AU	665797 B	18-01-199	
				EP	0615645 A	21-09-199	
				JP	7504771 T	25-05-199	
US	5430441	A	04-07-1995	NONE			
US	4918955	A	24-04-1990	JP	1737326 C	26-02-199	
	_			JP	4015141 B	17-03-199	
				JP	63093649 A	23-04-198	
US	5245332	A	14-09-1993	CA	1316268 A	13-04-199	
				DE	68928801 D	08-10-199	
				30	68928801 T	14-01-199	
				EP	0347893 A	27-12-198	
			·	JP	2051931 A	21-02-199	
EP	0805575	Α	05-11-1997	JР	10075241 A	17-03-199	
US	5450087	A	12-09-1995	JP	8084095 A	26-03-199	
				IJS	5686920 A	11-11-199	

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82